
ROCKY MOUNTAIN SPOTTED FEVER

Clinical Features: Initially, cases will present with sudden onset of moderate to high fever, malaise, deep muscle pain, severe headache, chills, and loss of appetite. A rash will appear 2 – 5 days after the onset of fever, and may be accompanied by abdominal pain, joint pain, and diarrhea. The characteristic rash will typically begin on the extremities, including the palms of the hands and soles of the feet, and may spread rapidly to the rest of the body

Causative Agent: *Rickettsia rickettsii*, which is maintained in nature during the complete life cycle of ticks and can be transmitted to dogs, rodents, and other animals; although animal infections are generally subclinical.

Mode of Transmission: Through the bite of an infected tick, or by contamination of broken skin by infected tick feces or blood. Typically, at least 4-6 hours of attachment is required for the rickettsiae to reactivate and become infectious to humans.

Incubation Period: From 3 days to about 14 days.

Period of Communicability: None, there is no direct transmission from person-to-person. Ticks remain infectious for their entire life, as long as 18 months.

Public Health Significance: Disease may be prevented through personal protective measures against ticks. No vaccine is currently licensed in the US. Case fatality rate for untreated cases is between 13% and 25%; death is uncommon in cases with prompt recognition and treatment.

Reportable Disease in Kansas Since: 1982

Laboratory Criteria for Surveillance Purposes

- Serological evidence of a significant change in serum antibody titer reactive with *Rickettsia rickettsii* antigens between paired serum specimens, as measured by a standardized assay conducted in a commercial, state, or reference laboratory, **OR**
- Demonstration of *R. rickettsii* antigen in a clinical specimen by immunohistochemical methods, **OR**
- Detection of *R. rickettsii* DNA in a clinical specimen by the polymerase chain reaction (PCR assay), **OR**
- Isolation of *R. rickettsii* from a clinical specimen in cell culture.

Surveillance Case Definitions

- *Confirmed:* A clinically compatible case that is laboratory confirmed.
- *Probable:* A clinically compatible case with serologic evidence of antibody reactive with *R. rickettsii* in a single serum sample at a titer considered indicative of current or past infection (cutoff titers are determined by individual laboratories).

Epidemiology and Trends

2005 Kansas Count: 4

	<i>Rate per 100,000</i>	<i>95% CI</i>
Kansas Rate	0.1	(0.0 - 0.3)
U.S. Rate (2004)	0.6	NA

Four cases of Rocky Mountain spotted fever were reported in Kansas in 2005. Cases ranged from five to 43 years in age; the median age was eight years. The three-year median for 2002-2004 was 0.5 cases.